

REMARKS

Claims 1, 3-6, 9-17, and 19-26 are currently pending in the subject application, and are presently under consideration. Claims 1, 3-6, 9-17, and 19-26 are rejected. Favorable reconsideration of the application is requested in view of the amendments and comments herein.

I. Rejection of Claims 14-17 Under 35 U.S.C. §112, Second Paragraph

Claims 14-17 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Specifically, in the Office Action dated October 26, 2007 (hereinafter "Office Action"), the Examiner rejects claim 14 by stating that the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention (Office Action, page 3). Representative for Applicant respectfully submits that claim 14 does not recite "such as". Instead, claim 14 recites "such that" to provide further definition to the claimed subject material. The use of the phrase "such that" provides clear evidence that the limitations following the phrase are part of the claimed invention. Accordingly, claim 14 satisfies 35 U.S.C. §112, second paragraph. Withdrawal of the rejection of claim 14, as well as claims 15-17 which depend therefrom, is respectfully requested.

II. Rejection of Claims 9-11 Under 35 U.S.C. §102(b)

Claims 9-11 stand rejected under 35 U.S.C. §102(b) as being anticipated by WO 01/43320 (U.S. Patent No. 7,080,006 is an English translation) to Kupferschmidt, et al. ("Kupferschmidt"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

Claim 9 has been amended to recite that the scale factor is associated with an amplitude of the input signal corresponding to a modification to the input signal. In contrast, Kupferschmidt discloses a scale factor that is a reference frequency value that is implemented for error correction (see Kupferschmidt, Abstract; Summary). Therefore, Kupferschmidt does not disclose that the scale factor is associated with an amplitude of the input signal corresponding to

a modification to the input signal, as recited in amended claim 9. Withdrawal of the rejection of claim 9, as well as claims 10 and 11 which depend therefrom, is respectfully requested.

III. Rejection of Claims 12, 13, 20, and 21 Under 35 U.S.C. §102(b)

Claims 12, 13, 20, and 21 stand rejected under 35 U.S.C. §102(b) as being anticipated by "OFDM With Reduced Peak-to-Average Power Ratio by Multiple Signal Representation", ovl. 52, no. 1/2, 2/1997, XP 000991143 by Muller, et al. ("Muller") in view of U.S. Patent No. 6,294,956 to Ghanadan, et al. ("Ghanadan"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

Claim 12 recites a signal splitter that decomposes an input signal into a plurality of replica signals, each of the plurality of replica signals having a maximum peak value below the maximum peak value of the input signal, a signal combiner that sequentially orders the plurality of replica signals for transmission, and a power amplifier that amplifies the sequentially ordered plurality of replica signals to provide a transmission signal. In the Office Action, the Examiner maintains that Muller discloses the elements of claim 12 (Office Action, pages 2 and 5; citing Muller, FIG. 5; pages 59 and 63). The Examiner also asserts the following:

Figure 5 of Muller discloses the input signal is input to a serial to parallel converter creating a plurality of copies of the input signal. These are the replicas of the input signal. The signals are then processed and combined as stated in the office action. (Office Action, page 2).

Representative for Applicant respectfully maintains that Muller does not teach claim 12.

FIG. 5 of Muller demonstrates an orthogonal frequency division multiplexing (OFDM) transmitter (Muller, Section V.1). FIG. 5 of Muller demonstrates that the input bit stream is provided to a unit that provides serial-to-parallel conversion of the user bit stream (Muller, FIG. 5). However, there is no indication in Muller that the parallel signals output from the serial-to-parallel combiner have a maximum peak value below the maximum peak value of the input signal, as recited in claim 12. Instead, Muller teaches that peaks are reduced for each of the parallel signals output from the serial-to-parallel combiner the component-wise addition of the

rotation vectors, such that each of the V pairwise disjoint sub-blocks are divided in such a way that every used subcarrier within the OFDM symbol is represented in exactly one of the V sub-blocks (Muller, Section V.1). Therefore, Muller does not teach that each of the plurality of replica signals have a maximum peak value below the maximum peak value of the input signal, as recited in claim 12. In addition, Muller teaches that the partial transmit sequences that each have the applied rotation vectors are provided to an adder which adds them together to produce the composite peak-reduced signal \tilde{a}_n (Muller, FIG. 5). Therefore, Muller also does not teach a signal combiner that sequentially orders the plurality of replica signals for transmission, as recited in claim 12, as Muller teaches that each of the partial transmit sequences are combined together, and not sequentially ordered. Accordingly, Muller does not anticipate claim 12. Withdrawal of the rejection of claim 12, as well as claim 13 which depends therefrom, is respectfully requested.

Claim 13 depends from claim 12, which is not anticipated by Muller for the reasons described above. Therefore, claim 13 should likewise be allowed over the cited art. In addition, claim 13 recites that the instruction signal informs a receiver of at least one of the number of replica signals and scaling associated with the replica signals. Muller teaches that side information of a set of rotation factors is transmitted to the receiver (Muller, Section V.2). However, because Muller does not teach that peaks are reduced based on the scaling of the replica signals, or that the replica signals are sequentially ordered for transmission, Muller likewise does not teach that the instruction signal informs a receiver of at least one of the number of replica signals and scaling associated with the replica signals, as recited in claim 13. Therefore, Muller does not anticipate claim 13. Withdrawal of the rejection of claim 13 is respectfully requested.

Claim 20 recites modifying an input signal into a plurality of replica signals, each of the plurality of replica signals having a peak value below the maximum peak value of the input signal, and sequentially ordering the plurality of replica signals into a transmission signal. For the reasons described above regarding claim 12, Muller does not anticipate claim 20.

Withdrawal of the rejection of claim 20, as well as claim 21 which depends therefrom, is respectfully requested.

IV. Rejection of Claims 14, 15, 17, 19, and 22 Under 35 U.S.C. §102(b)

Claims 14, 15, 17, 19, and 22 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Publication No. 2004/0086054 by Corral ("Corral"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

Representative for Applicant respectfully submits that the rejection of claims 14, 15, 17, 19, and 22 under 35 U.S.C. §102(b) in view of Corral is in error. Specifically, the filing date of the Present Application is June 26, 2003. The publication date of Corral, however, is May 6, 2004. Under 35 U.S.C. §102, "[a] person shall be entitled to a patent unless...(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States," (35 U.S.C. §102(b)). Representative for Applicant thus respectfully submits that the rejection of claims 14, 15, 17, 19, and 22 under 35 U.S.C. §102(b) in view of Corral is improper. Accordingly, because the publication date of Corral post-dates the filing date of the Present Application, Representative for Applicant respectfully submits that the intended rejection should be under 35 U.S.C. §102(e).

It is respectfully submitted that Corral is not prior art against the subject application under 35 U.S.C. §102(e) as the invention recited in claims 14, 15, 17, 19, and 22 was conceived by Ian Robinson and Frank Winter, the inventors of record for the subject application, before the October 31, 2002, filing date of Corral. Further, the inventors, assignee, and their representatives were diligent in reducing the invention to practice from at least the October 31, 2002, date until the invention was constructively reduced to practice via the filing of the subject application on June 26, 2003.

It is respectfully submitted that the declarations signed by the inventors and the supporting exhibits demonstrate conception of the invention prior to October 31, 2002, and diligence in reducing the application to practice. Specifically, Exhibit A is an invention

disclosure, dated November 27, 2002, that describes the claimed invention in considerable detail. Exhibit A describes a Date of First Written Description of the Invention as October 5, 2002, which predates the October 31, 2002, critical date of Corral. It is respectfully submitted that the invention disclosure, specifically the fifth paragraph under the heading "Inventive Concept" on page 5 of 9, the first six paragraphs under the heading "Invention Description and Operation" beginning on page 5 of 9 and continuing into page 6 of 9, and Figure 1 on page 7 of 9, provides adequate support for at least claims 14, 15, 17, 19, and 22 to allow one skilled in the art to practice the claimed invention.

The assignee provided the disclosure to Representative for Applicant along with instructions to prepare a patent application on or about January 27, 2003. Representative for Applicant docketed the application in accordance with standard procedures, prepared backlogged cases in chronological order, and then proceeded to complete a draft of the application by May 8, 2003, as evidenced by Exhibits B and C. Mr. Robinson reviewed the draft and communicated his changes to the first draft sometime prior to June 21, 2003, when applicants' representatives e-mailed a second draft to him, as evidenced by Exhibit D. The application was finalized shortly thereafter.

On June 23, 2003, formal papers (*e.g.*, a declaration of invention and an assignment) were e-mailed to Mr. Robinson and Mr. Winter in the e-mail provided as Exhibit E. The inventors reviewed the finalized application, signed the formal papers, and mailed them back to Representative for Applicant. The signed formal papers were received on or before June 26, 2003, and the application was filed on this date.

It is respectfully submitted that the foregoing demonstrates conception of the invention prior to the filing date of Corral and diligence from at least the filing date of Corral to the filing date of the subject application. It is thus respectfully requested that the rejection of claims 14, 15, 17, 19, and 22 in view of Corral be withdrawn.

V. Rejection of Claims 1 and 3-6 Under 35 U.S.C. §103(a)

Claims 1 and 3-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Corral in view of U.S. Publication 2003/0099302 to Tong, et al. ("Tong"). However, in light of the above discussion, Corral is not prior art with regard to the Present Application. Therefore, claim 1 is allowable in view of the cited art, as well as claims 3-6 which depend therefrom. Withdrawal of the rejection of claim 1, as well as claims 3-6 which depend therefrom, is respectfully requested.

VI. Rejection of Claims 16 Under 35 U.S.C. §103(a)

Claims 16 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Corral in view of Muller and Ghanadan. However, in light of the above discussion, Corral is not prior art with regard to the Present Application. Therefore, claim 16 is allowable in view of the cited art. Withdrawal of the rejection of claim 16 is respectfully requested.

VII. Rejection of Claims Under 35 U.S.C. §103(a)

Claim 23 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Corral in view of Kupferschmidt. However, in light of the above discussion, Corral is not prior art with regard to the Present Application. Therefore, claim 23 is allowable in view of the cited art. Withdrawal of the rejection of claim 23 is respectfully requested.

VIII. Rejection of Claims 24-26 Under 35 U.S.C. §103(a)

Claims 24-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Corral in view of Tong further in view of Kupferschmidt. However, in light of the above discussion, Corral is not prior art with regard to the Present Application. Therefore, claims 24-26 are allowable in view of the cited art. Withdrawal of the rejection of claims 24-26 is respectfully requested.

CONCLUSION

In view of the foregoing remarks, Applicant respectfully submits that the present application is in condition for allowance. Applicant respectfully requests reconsideration of this application and that the application be passed to issue.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

Date 12 February 2008

/Christopher P Harris/

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